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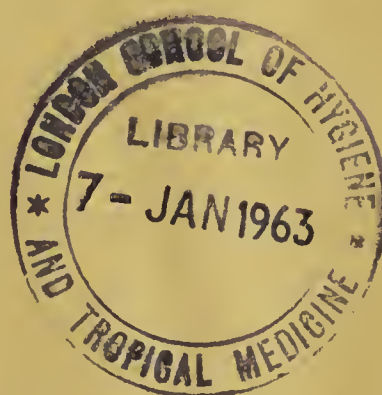
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COLONY OF SEYCHELLES

ANNUAL REPORT

OF THE



MEDICAL DEPARTMENT

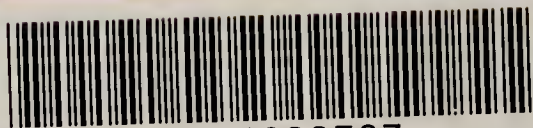
FOR THE YEAR

1960

Victoria
Mahe Seychelles

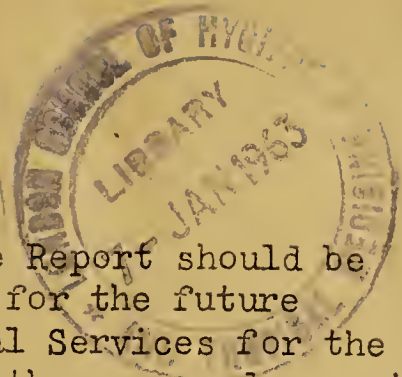
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GENERAL REVIEW



It is fitting that the opening words of the Report should be a word of gratitude for work done and of good wishes for the future addressed to Dr. K. Edmundson, the Director of Medical Services for the last 3 years, who left the Colony for good in December of the year under review. No successor was appointed before his departure. The task of compiling this review and of tabulating the figures for the last year of his work therefore falls upon one who had no hand in the shaping of them and to whom therefore neither praise nor blame must be ascribed. *Quidquid agunt homines nostri est farago libelli.*

2. The year 1960 was made a unique year by the appointment of Dr. Philip as a part-time ophthalmic surgeon to the Victoria Hospital. This is the first time that Mahe has been fortunate enough to have a resident ophthalmic surgeon. The work of the infant department (summarised on page 8) shows that the appointment was amply justified.

3. Turning to visitors from outside who came at the request of the Seychelles Government to help the Medical Department we have to record the visit of two Teams. Drs. Foy and Kondi, who had arrived in November 1959, finished their review of the causes of anaemia in the Islands and left in 1960. In this Report they considered that Hookworm infection to be the chief cause, that sub-Nutrition was a second but very minor cause, and that the existing state of affairs could be remedied by the taking of iron by the mouth and by better sewage system.

4. The second Team of visitors was the World Health Organisation Tuberculosis Survey Team. Two of the members of this team arrived late in the year and began to study the ground and the line of action required. As no actual work was carried out by this Team in 1960, there is no need to do more than mention their arrival. Appraisal of their work must be left to the Report of the following year.

5. The general health of the Colony has been good throughout the year, though there was an outbreak of measles towards the end of the year. The origin of the epidemic, the accuracy of the diagnosis, and the morbidity it caused were the subject of more than one leading article in the local press and produced a rather acrimonious and totally unfounded attack upon the Medical Services in the Colony. As the epidemic extended into the New Year, it is more fitting to discuss it at length in the Report for 1961 when the full figures of case incidence and mortality will be known. Suffice to add here that any disease which a healthy child will normally throw off, is potentially dangerous in the Seychelles, where the standard of child nutrition is low, where anaemia is rampant, and where resistance has not been acquired through repeated infection.

6. Increased vigilance by the Public Health staff has resulted in discovery of six cases of Leprosy. All were segregated in the Leprosarium, thereby, bringing up the total number of Lepers under treatment to 17.

7. A word must be said about new buildings. First and most important is the building of the new X-ray Department. (The actual instrument should be in operation in 1961). The building is an ambitious one. At one end has been constructed the Tuberculosis Out Patient Department with consulting room, waiting and changing rooms, toilets and direct access to the photographic room. At the other end of the building will be a waiting room for the general public, changing rooms, toilets, and access to the photographic room from the other side. Thus, persons suffering from Tuberculosis will never come in contact with other sick people. In between the two will be the Records Office, the Developing Room, and of course the Machine itself.

8. Other building operations include the wiring of the whole hospital for AC current (not yet available) and the handing over to the Educational Department of the big building above the Hospital which was originally designed for a Tuberculosis Sanatorium. New buildings were also completed at Anse Royale, but these have not been put into use during the year under review.

9. The local Branch of the BMA of which many of the Government Medical Officers are members continues to flourish and to interest its members both in local medical affairs and occasionally in wider scientific matters. The number of members has now reached twelve, surely a record for the Seychelles. Only a few months previously the British Medical Journal reporting on the Branch had come out with the caption "Now we are seven." Now we are a Team.

1
The first of these is the fact that the
population of the United States is
increasing rapidly. This is due to
the fact that the birth rate is
higher than the death rate.

I. STAFF

10. The general staffing position both as regards medical officers and nursing sisters remains difficult. It is the policy of the Department to encourage general duty Medical Officers to adopt a speciality in addition to their general duties. When such a man becomes proficient in his speciality, it becomes wasteful to employ him in the out-stations. In consequence more and more of the small medical staff are becoming tied to the Victoria Hospital. There is only one post in the Colony that is a true General Practice appointment, that is, the Medical Officer, Praslin. It is widely felt that the time has come when the system of transferring a doctor from Mahe to Praslin every few months should be dropped and that the post of Medical Officer, Praslin, should become a definite post allotted to one man for the whole of his contract.

11. Of the present staff of ten doctors, no fewer than six are tied to Victoria. There is the Physician who is now the acting Director of Medical Services, there is the Surgeon, and there is the Medical Officer of Health. The remaining three are general duty officers who have had special experience in anaesthetics, tuberculosis, and onstetrics. Of these six the first three are by their duties confined to Victoria. There is hardly need to point out that the three are best employed where the population is greatest.

12. Over all hangs the problem of a sufficient staff to carry on in spite of the gaps due to leave, sickness and absence on courses of special study. Each year a crisis arises and will continue to arise.

13. Departures

Dr. J.D.M. Ferrari, Medical Officer 8.7.60 on Leave
Miss J. Mason, Nursing Sister 19.7.60 on Resignation
Mr. Etienne, lent by W.H.O. to the Public Health Department,
15.8.60 on transfer
Sister Mary, Nursing Sister 13.11.60 on leave
Dr. K. Edmundson, Director of Medical Services 19.12.60 on
expiration of contract.
Mr. F. Camille, Medical Secretary 17.4.60

Arrivals

Dr. S.C. De, Medical Officer 16.2.60 from leave
Dr. B.H.F. Collie, Medical Officer 20.7.60 from leave
Mr. F. Camille Medical Secretary 20.7.60 from leave
Dr. Mrs. E. Collie, Medical Officer 15.8.60
Sister Patrick, Nursing Sister 15.9.60 from leave
Dr. A. Philip, Ophthalmic Surgeon 13.10.60
Dr. J.D.M. Ferrari, Medical Officer 19.2.60 from leave

14. The Department comprises:-

1 Director of Medical Services (Vacant)
1 Surgeon
1 Physician (acting Director)
1 Ophthalmic Surgeon
7 Medical Officers
2 Dental Surgeons
1 Matron
Nurses (see below)
1 Chief Health Inspector
9 Health Inspectors
8 Public Health Nurses

15. The duties of Medical Officer of Health, formerly carried out by the Director of Medical Services, have been delegated to one of the General Duty Doctors. This has become a nearly whole-time job and the doctor appointed now carries out all Public Health duties, inspection of Welfare Clinics, the Inoculation Clinics, and Port Health duties. A detailed report of these activities occurs on page 27.

16. <u>Finance</u>	1960	1959	1958
Expenditure (estimated)	991,782	856,635	792,622
Expenditure (actual)	954,802	819,486	751,358
Revenue	107,233	92,164	91,370
Colony Expenditure	6,731,273	5,866,334	5,395,346
Cost of Medical care per head of population	23.05	18.99	17.93
Hospital Fees	Rs. 69,031		

II. Nursing and Training

17. The training of nurses continued throughout the year with unabated vigour. The posting of a Matron and the release of the Sister Tutor thereby to her proper function on a whole time basis permitted an increase of students under training. The Preliminary Training School takes two batches recruits a year. The number of girls that apply for the nursing profession and for admission to the school always exceeds the vacancies. A preliminary examination weeds out a certain number and the examination taken at the end of the course weeds out a few more. These that survive then start their nursing in the Wards.

18. Every nurse on passing her final nursing then proceeds to train for one year in Midwifery. Up till now no nurse has failed to pass her Final Midwifery examination.

19. The total number of new entrants for training during the year was 13. The total number of trained nurses who began their midwifery training in 1960 was 6.

20. There are at present four nurses in England undergoing training in addition to one who gave up the course on account of marriage. Of these four two are males and two females. It is hoped to send others this coming year.

21. In addition to the nurses there is one Laboratory Technician who is working for his A.M.I.L.T. for which he should be sitting in the summer of 1961. It is hoped that he will then return and replace the present head Technician for whom a course on the same subject will be arranged in the United Kingdom.

22. The School of Nursing moved into new quarters early in 1960 and now occupies two rooms on the ground floor of the hospital. Both rooms are small and accommodate approximately 16 pupils, 8 in each class room. As the average number in class is 8 they give sufficient accommodation for the present, but should the numbers increase other arrangements would be necessary.

23. New equipment was received during the year from local and overseas sources. Twelve desks and chairs to match, of the latest model from the Technical Centre; three cupboards from the Public Works Department; a bandaging model from United Kingdom plus a number of charts and text-books. It is now possible to present a text-book in each subject to incoming students which is a step forward and a great help to Students and Tutor alike. Many of the present textbooks however are out of date and it is hoped during the coming year to have them replaced by more recent editions.

24. There were 40 student nurses in training during the year. They were at various stages of training and all of them took at least one examination and some two with the result that 44 candidates were presented for examination as follows:-

Final Examination in General Nursing	5 presented	5 passed
Prelim Part II " " "	10 "	10 "
Prelim Part I " " "	14 "	13 "
P.T.S. " " "	15 "	14 "

25. The candidate who failed the P.T.S. Examination resigned from the service.

26. The Prelim Part I Candidate will resit the Examination at a later date.

27. The following Medical Staff helped with lectures for the Final Examination in General Nursing:-

Dr. C.L. Elgood D.M. F.R.C.P.	-	Medicine
Dr. A. Penrose M.B. B.S.M.	-	Surgery
Dr. B.G.H. Collie M.B. Ch. B.	-	Gynaecology
Dr. H.J. Lloyd B.A., M.B. B. Ch.	-	Paediatrics, Psychology Dietetics and skins
Dr. R.S. Francis	-	Veneral Diseases
Dr. C. De LM.P. M.B. T.D.D.	-	Tuberculosis
Dr. E. Collie M.B., Ch.B.	-	Public Health and Communicable diseases
Dr. J.D.M. Ferrari M.B. Ch.B. B.A.D.	-	Ear, Nose and Throat
Dr. A. Philip D.O.M.S. D.L.O	-	Eyes
Sister Patrick S.R.N. S.C.M. B.T.A.	-	Theatre Technique
Mr. T.M.J. D'Offay, F.R.C.S.	-	concluded the course

with a sound and practical lecture on the principles of aseptic technique surgery.

28. Mrs. Geva Savy helped to improve the standard of English among the nurses by holding English classes twice a week.

29. Looking back, 1960 was a record year for examination results, 42 of the 44 candidates having passed examinations. The same results cannot be predicated for 1961 because:-

1. The syllabus of subjects for General Nursing was revised by the Nursing Board towards the end of the year. The new syllabus is broader, covers more ground in each subject and new subjects have been added. This means more lectures for the students and more time off the wards. With the present shortage of staff and pressure of work difficulty in having the students for the necessary lectures is foreseen.

2. Recruitment was so poor during the year that candidates below the required standards were accepted. The new Syllabus requires a good average intelligence and education to cope with its contents and as many of the student nurses possess neither there is not much hope of success.

30. The nursing Establishment for the Colony is as follows:-

- 1 Matron
- 1 Sister Tutor
- 6 Nursing Sisters (1 public health)m
- 22 Staff Nurses and Midwives
- 4 Midwives
- 3 Registered Male Nurses
- 1 Staff Nurse.

31. To these should be added the nurses in training who number:-

- 3 male students
- 34 female students
- 1 pupil midwife
- 6 pupil midwives (already General Trained)

III. HOSPITAL AND DISPENSARIES

32. No increase in beddage occurred during the year, the total number being as before:-

Seychelles Hospital	155 beds
Anse Royale Hospital	17 beds
Baie Ste Anne Hospital, Praslin	28 beds
Logan Hospital, La Digue	8 beds
Beolliere Clinic	2 beds

210 beds

In addition to the above two special hospitals are maintained. They are the Mental Hospital at Les Canelles, Anse Royale, Mahe with accommodation for 30 male and 30 female patients. The other is the Leprosarium on Curieuse Island which has accommodation for 19 male and 12 female patients. It was at one time hoped that the Colony could be transferred to Mahe and this charming island to the Agricultural Department. But a recent rise in the number of lepers (as already noted in this Report) render such a step premature.

(i) Victoria Hospital, Mahe (155 beds):- This Hospital performs, of course the main work of the Colony. Here are stationed the two specialists - surgical and medical - and here are located the Special Departments of eyes, ear, nose and throat, obstetrics, venereal diseases, and operative surgery with a trained anaesthetist.

(ii) Some idea of the amount and type of surgical work done is reflected in the following figures:- Major operations - 170, including seven emergencies. Minor Operations - 461, this figure includes a large number of eye, and ear, nose and throat operations, but generally the types of operation included under this heading are:- reduction of fractures application of plaster casts, dilatation of structures of Urethra, Suture of Wounds, and incisions of abscesses. Minor operations done in the Casualty department are not included. New patients seen in consultation numbered 609, about 50 per month. Old patients numbered 431. At the time of writing 285 patients are on the waiting list awaiting operations. 227 were put on the list during 1960. Urgent cases are naturally dealt with at once, and semi-urgent ones are admitted into hospital as soon as convenient.

(iii) There are certain features worth pointing out regarding aspects of surgical diseases in Seychelles: the extreme rarity of appendicular and gall bladder diseases, and of cancer. Cancer would appear to be 1/15 as common as in Europe. And I can offer no simple or adequate explanation for this blessing. In view of the prevalence of chronic inflammation and of structures of the lower Urinary tract, there is an astonishing absence of kidney complications and of stone formation in the upper urinary tract.

(iv) The work of the surgical side is constantly hampered by lack of beds, and by an archaic operating theatre with inadequate sterilising facilities. We also need a full time nursing staff for the operating theatre.

(v) GENERAL SURGERY INCLUDING GASTRO-INTESTINAL

	<u>Elective</u>	<u>Emergency</u>	<u>Total</u>
Appendicectomy for Acute Appendicitis	5	-	5
Cholecystectomy for Cholelithiasis	1	-	1
Herniorrhaphy for Inguinal Hernia	37	-	37
Strangulated Inguinal Hernia	2	3	5
Femoral Hernia	1	-	1
Umbilical Hernia	6	-	6
Ventral Hernia	3	-	3
Operation for Fissure-in-Ano	1	-	1
Haemorrhoidectomy	1	-	1
Excision Varicose veins	6	-	6
Excision cyst-adenoma thyroid	5	-	5
Subtotal Thyroidectomy	2	-	2
Exploration of thyroid for carcinoma	1	-	1

	<u>Elective</u>	<u>Emergency</u>	<u>Total</u>
Excision of Thyro-glossal cyst	1	-	1
Excision of Mixed Salivary gland tumour	2	-	2
Excision of Meningocele	1	-	1
Excision of Lip for Carcinoma	1	-	1
Excision of peritoneal Lipoma	1	-	1
TOTAL	77	3	80

(vi) BENITO-URINARY SYSTEM

Excision of Hydrocele	6	-	6
Orchidectomy for Haematecele	1	-	1
Dilation of Stricture Urethra (Retregrade)	2	-	2
Suprapubic Cystosmy for Stricture Urethra	6	1	7
Calculus	1	-	1
Suprapubic Prostatectomy	2	-	2
Nephrectomy for Calculus	1	-	1
Amputation of Penis for Carcinoma	2	-	2
TOTAL	21	1	22

(vii)

Salpingectomy for Ectopic Gestation	2	-	2
Total Hysterectomy for Fibroids	36	-	36
Ovariectomy for Ovarian Cyst	3	-	3
Fothergill's op. for Uterine prolapse	2	-	2
Vaginal Hysterectomy Uterine prolapse	3	-	3
D & C for incomplete abortion	1	-	1
Radical Mastectomy for carcinoma	1	-	1
Caesarean section upper segment	5	-	5
Lower "		2	2
Excision of vulva for carcinoma	1	-	1
Suture of Uterus for Rupture	1	-	1
TOTAL	55	2	57

(viii) ORTHOPAEDIC

Plating of forearm fracture	1	-	1
Open reduction of fractures Golles Tibia and Fibula	2	-	2
Amputations toes	2	-	2
Amputation above knee for Gangrene	1	-	1
Bone Grafting for ununited fracture	1	-	1
TOTAL	7	-	7

(ix) EAR, NOSE, THROAT AND EYES

Lense extraction for senile cataract	3	-	3
GRAND TOTAL	163	7	170

B. MATERNITY AND ANTE-NATAL SERVICES

1. MATERNITY

There was a further increase in the number of admissions and deliveries conducted in the Seychelles Hospital. It is thought that the abolition of the fee for hospital confinement for third class patients was largely responsible for this increase. In any case, the wards of the Maternity Department are now too small and serious consideration must be given to the provision of more beds.

2. ANTE-NATAL CLINIC

The figures show that the clinic is increasingly popular and it is gratifying to note that over 95% of expectant mothers patronise it.

There has been a marked decrease in the percentage of foetal loss at all stages compared with previous years, and this alone is overwhelming proof, if proof is needed, of the advantages of regular attendance at the clinic.

<u>Ante-Natal Clinic, Victoria</u>	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>
First attendances	1042	948	847	819
Repeat attendances	3248	2645	2514	2497
TOTAL	4290	3593	3361	3316
G.C. Cervivitis	66	58	41	7
Kahn Positive	42	19	16	20
External version performed	4	8	5	7

3. Details of work carried out in the Maternity Departments are given below:-

A. SUMMARY OF WORK

	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>
Number of admissions	1036	944	905	889
Number of deliveries	896	821	753	775
Primipara	176			
Multipara	720			
False labours	48			
Normal deliveries	813			
Forceps deliveries	7			
Breech deliveries	24			
Caesarean sections	8			
Babies born before arrival	48			
Multiple deliveries	15			
Total babies born	911	837	763	793
Male	469			
Female	442			
Stillbirths	22			
Premature births	119			
Neonatal deaths	11			
Maternal deaths	2			

B. ANTE-PARTUM COMPLICATIONS

Toxaemia of Pregnancy	34
Eclampsia	1
Ante-Partum Haemorrhage	9
(a) Accidental	5
(b) Placenta praevia	4

Abnormal presentation

(a)	Breech	24
(b)	Oblique lie	1

TOTAL	69
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C. ANALYSIS OF CAESAREAN SECTIONS

Number of Caesarean Sections 8

(i)	Classical	6
(ii)	Lower Segment	2

Indications:

Abnormal presentation	1
Placenta praevia	2
Foetal distress	1
Ruptured uterus	1
Elderly primigravida	1
Contracted pelvis	1
Heart disease	1

D. POST-PARTUM COMPLICATIONS

(i) Retained placenta with or without haemorrhage manual removal 9

(ii) Post-Partum haemorrhage 24

Mild	19
Severe	5

E. CAUSES OF MATERNAL MORTALITY

Post Partum haemorrhage 2

F. ANALYSIS OF STATE OF INFANTS

(a) Total babies born at full term 792
Discharged alive 789
Still born 3

(b) Total babies born prematurely 119
Discharged alive 89
Still born 19
Neonatal deaths 11

		<u>1959</u>	<u>1958</u>	<u>1957</u>
(c) Total foetal loss at all stages	33	47	44	45
Percentage of total births	3.62%	5.61%	5.54%	5.67%
Stillbirths	2.41%	3.93%	3.90%	3.53%
Neonatal deaths	1.20%	1.67%	1.63%	2.14%
Survival rate of premature babies born alive	74.8%	63%	64.7%	60%

Anse Royale Hospital (17 beds). Though it contains only 17 beds additional cots are used in case of emergency. The Medical Officer, Anse Royale Dr. Ferrari was replaced by Dr. Francis during 4th week of June, as the former proceeded on overseas leave. The hospital at Anse Royale is situated near the sea about 12 miles away from Victoria on the Mahe island. An ambulance is provided to transport major surgical conditions and difficult obstetrical cases to Victoria. The Medical Officer Anse Royale is responsible for the small three-bedded clinic at Beolier and the clinic at Takanaka. He is also Superintendent of Mental Hospital at Les Canelles. This year no investigation either on anaemia or asthma was done. But cases of allergic asthma showed a good response to a special mixture of medicines.

The following figures indicate the work done at South Mahe medical institutions during the year.

Out Patients

First attendance	6639
Return cases	1542
Minor operations	48

Ante-Natal Clinic

First Attendance	287	Return cases	1011
Births in District alive	67	Stillborn	1

IN-PATIENTS

No. of in-patients during the year	612
No. of patients died	4
Minor operations	18

Maternity

No. of Births alive	204
Stillborn	2
Complications of pregnancy	7
Complications of labour	6
Complications of puerpericum	1
Premature Births	5
Congenital malformations	1

Veneral diseases

Gonococcal infections	97
Syphilis K.R.	13

N.B. Only two cases of G.C. urethritis were resistant to penicillin which were treated with streptomycin with good results.

D. Beoliere (3 beds)

Beoliere clinic is visited by M.O. Anse Royale weekly twice and Government Dentist fortnightly once. Maternity cases only are admitted in the Hospital. Medical and surgical cases are either transported to Anse Royale or Victoria. These are the following figures:

First attendance	2257	Return cases	165
Minor operations	13		

Ante-Natal clinic

First attendance	85	Return cases	241
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IN-PATIENTS

No of Births alive	60
Stillborn	NIL
Complications of pregnancy	1
Congenital malformations	1

Veneral diseases

Gonococcal infections	17
Syphilis K.R.	2

E. Takamaka

Takamaka Clinic is held in a schoolroom which has been lent by the kind permission of the Roman Catholic Mission. This clinic is on trial, but experience is showing that the number of patients will increase and will be equal to or more than Beoliere Clinic if a clinic can be opened with a Staff Nurse in charge. As the clinic is not yet well equipped, patients are often asked to visit Anse Royale.

Out-Patients

First attendance	710
Return cases	21

F. Praslin and La Digue

Out patients

Attendances at Baie Ste Anne Hospital	1,813
Grand Anse Clinic	1,777
La Digue Hospital	2,128

In Patients

Baie Ste Anne Hospital (28 beds)	589
La Digue Hospital (8 beds)	102

Ante-Natal Clinic

	<u>First attendances</u>	<u>Repeat attendances</u>	<u>TOTAL</u>
Baie Ste Anne	83	392	475
La Digue Hospital	74	154	228
Grand Anse	94	363	457

	<u>Baie Ste Anne</u>	<u>Grand Anse</u>	<u>La Digue</u>
Live Births	124	34	69
Premature births	7	-	4
Stillbirths	3	1	1
Complicated labour	6	-	3

Minor Operations

	<u>In-Patient</u>	<u>Out-patient</u>
Baie Ste Anne	6	45
Grand Anse	-	24
La Digue	1	27

Number of patients died

Baie Ste Anne	6
La Digue	1

G. MENTAL HOSPITAL, LES CANELLES

Dr. Ferrari was the Superintendent of above Hospital till 4th week of June; later Dr. Francis was posted in his place. During 1960, two male attendants resigned and their gaps were filled within few days. Neither Superintendent nor male attendants have any special qualifications in psuchiatry. One of the male nurses was sent abroad for the training. The female ward was converted into four cells and we hope to get the male ward into cells.

During July, 1960, insulin shock therapy was tried on 12 patients without a convulsant. The results were exceedingly good. One patient who was not responding to any treatment for 11 years responded to insulin. The

maximum number of injections did not exceed 35. The following cases were treated with insulin.

Obsessional states	4
Schizophrenia	5
Manic depressive psychosis	2
Anxiety states	1

One Schizophrenic and one with an anxiety state have been discharged after this treatment. It is to be noted that no patient showed any coma, excitability or laryngeal spasm with insulin.

Apart from the above insulin shock, obliwan was tried on elated and excitable cases which gave fairly good result. These are the following figures for the Mental Hospital:

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Number of patients resident at 1.1.60	19	21	40
Number of cases out on trial 1.1.60	1	9	10
Total cases at 1.1.60	20	30	50
Admission during 1960 including 4 out on trial re-admitted	8	5	13
Number of patients discharged during the year 1960	6	6	12
Total Number of patients discharged as cured	6	4	10
Deaths during 1960	-	2	2
Number of cases out on trial on 31.12.60	1	11	12
Number of patients resident on 31.12.60	20	18	38
Total patients at the hospital including those out on trial on 31.12.60	22	29	51

H. The Prison

(i) The Prison Medical Officer attends daily to deal with prisoners reporting sick, admissions and discharges.

(ii) The general health of the prisoners remained good throughout the year. There was no epidemic. The Prison is kept under the supervision of the Prison Medical Officer and the health authorities.

(iii) All prisoners employed in the cookhouse were examined periodically for evidence of intestinal diseases. Prisoners are weighed on admission and monthly intervals and any serious decrease in weight is investigated.

The following are the Statistics of health:

Daily average population	83.53
Daily average reported sick	1.30
Number of prisoners admitted to hospital	7
Number of deaths	-

The scale of diet is as follows:

Sugar	14	grammes	daily
Rice	457	"	"
Salt	21	"	"
Oil	40	"	"
Bread	100	"	"
Tea	01	"	"
Fish	171	"	"
Green vegetables	114	"	"
Other vegetables	114	"	"
Bananas	3	Unit	"
Coconut	228	grammes	"
Curry powder	03	"	"
Lentils	114	"	"

Meat (Pork) is issued when available from the Prison Farm in lieu of Fish.

(iv) There was no complaint about food during the period under review and practically all prisoners gained weight and better health.

(v) In the event of a prisoner who is accustomed to a European standard of life, a special diet is given to him on the recommendation of the Medical Officer. During the period under review 2 prisoners are receiving European diet. European diet is given on the recommendation of the Medical Officer if he considers that the normal local diet would be a danger to the prisoner's health.

IV. Eye Department

Doctor A. Philip, from Kenya, began to work in the Hospital in October, combining the work of a Throat Specialist with that of an Eye Specialist. The demand on his services was very great and it was soon evident that two clinics were insufficient. Dr. Ferrari who had been conducting a Throat clinic before his departure on leave was therefore invited to help. He very kindly consented to take the greater part of the Throat work, leaving Dr. Philip all the Eye cases and a certain number of the more abstruse E.N.T. cases.

Patients seen since the Clinic began 101
Operations performed 24, classified as follows:

Tonsillectomy and Adenoidectomy	4
Iridectomy	1
Pterygium	4
Turbinectomy	2
Anthrostomy	3
Tenotomy for Squint	4
Cataract operation	4
Inversion of eye lid	1
Removal of Nasal polypi	1

V. Dental Report

Mr. H. Breslin L.D.S. (Glasgow) left the colony on termination of his contract on 22nd May and was replaced at the dental clinic at Victoria by Mr. G.L.E. Savy B.D.S. (Lon) L.D.S.R.C.S. (Eng.) who had just completed a tour of inspection of all the schools in Mahe and the outlying posts. This was indeed the first time in the history of Seychelles that two Seychellois dental surgeons were looking after the dental health and welfare of this colony. We would again reiterate what had been said by one of our predecessors that it is entirely due to Mr. E.R. Harter, another Seychellois, that the Dental Clinic has attained its present status. Let us hope that much more improvement will come our way.

General

A total of 10,373 patients attended the Dental Clinics during the year; this shown an increase of 1998, 2327, 2858 over the attendances in 1959, 1958 and 1957 respectively. There was also a great demand for conservative treatment and intricate denture-work. This is very encouraging but still too many patients including children are presenting themselves at the clinic with advanced dental decay of their adult dentition. The amount of dental decay in children has doubled in the last decade and this constitutes a problem of national importance. Quite apart from the fact that there are not enough dental surgeons in the Seychelles to give full treatment to the colony's diseased mouths, it is obvious that the way to control dental diseases is not by treatment but by prevention. Prevention requires adequate nutrition including fluoridation of water supplies where necessary, and then appropriate oral hygiene.

Finally, let us bear in mind that science offers as yet no panacea for dental and oral diseases in the form of mass inoculations and

Medications. We are left to a great extent with operative procedures which are "time consuming and expensive" in every sense of the word. Our only road to progress is a "Public Dental Health Mindedness in Education and Public and School Oral Hygiene."

B. School Dental Service:

Mr. G.L.E. Savy B.D.S. (Lon) L.D.S.R.C.S. (Eng.) completed his statistical survey of the school children of Mahe and some of the outlying Islands. (His Report follows later)

C. Outlying Posts:

From Victoria regular visits were paid to the Mental Nome (once a month). Anse Royale (once a week) and to Beoliere Clinic (once a fortnight). A visit was also arranged in July to Praslin, La Digue and Curieuse Islands.

Summary of Treatment:

1. <u>Victoria</u>	<u>Under 18</u>	<u>Over 18</u>	<u>Total</u>
D. (a) Attendances	2598	6445	9043
(b) Extractions	1757	5034	6791
(c) Fillings	970	1777	2747
(d) Dressings	247	513	760

E. Other conservative work

Bridges	7
Gold inlays	16
Crowns (including jacket crowns, post-crowns and Full Gold Crowns)	31
Scalling and Polishing and Gum Treatments	172
Root treatment	41

F. Prosthetic and Orthodontic Work

Dentures (Full and Partial)	147
Repairs	51
Orthodontic Plates	13

G. Special Minor Surgery

Surgical Extractions (Mostly impacted lower third molars)	46
Alveolectomy	5
Gingivectomy	2
Apisectomy	16
Cysts excised	2
Fractures of mandible treated wither by splinting or wiring	5
Fibrous epulis excised	3
Dental abcesses incised and drained	8
Removal of Sequestra	5
Lingual Frenectomy	1
Excision of Complex Compoosite Odontome	1
Oro-Antral fistulae treated	3

H. Other Work

Antibiotic Therapy of badly infected cases	108
Dental X-Rays taken	247
Vincent's Stomatitis	3
Arrestation of Maemorhage (Dental) by packing or suturing	16
Dry socket treated	22
Vitamin C deficiency treated	3
Temporo-Mandibular Disorders treated	

1. Dislocation	3
2. Derangement	3

Maxillary Sinusitis treated 3
Trigeminal Neuralgia referred 2
Trismus due to end result of
Arthritis 1

II. Other Clinics in Mahe

	<u>Attendances</u>	<u>Extractions</u>	<u>Dressings</u>
Anse Royale	818	1277	10
Grand Anse (Beolierre)	335	511	2
Mental Home	33	46	

III. Clinics on outlying Islands

<u>PRASLIN</u>	<u>Attendances</u>	<u>Extractions</u>	<u>Dressings</u>	<u>Filling</u>
Grand Anse	53	121	4	6
Baie Ste Anne	58	139		7
La Digue	32	71	1	3
Silhouette	80	203		

Comparison of the work and attendances during the years 1957-1960 at the Dental Clinic at Victoria as shown below:-

	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>
Attendances	6169	6824	8475	9053
Fillings	959	1255	2297	2747
Extractions	5921	5848	6630	6791
Dressings	529	737	971	760
Bridges	-	2	-	6
Gold inlays	26	17	6	16
Crowns	-	12	22	31
Root fillings	-	7	7	41
Scaling and Gum treatment	4	51	73	147
Full and partial dentures and repairs	125	162	167	198
Orthodontic work	12	6	12	13
Apisectomy	-	-	3	16

However, we must still work harder to instill into the public a growing health mindedness and education. It is universally recognised nowadays that education is concerned with the whole development of the child and that this includes his physical well-being. Not only can neglected teeth cause severe pain; they can contribute substantially to backwardness and lack of concentration in the child. Moreover, a good appearance, for which fine teeth are essential, has great psychological importance later in life.

VI. Laboratory Division

Details of Laboratory Examinations done for the Year ending 31st December, 1960.

A. <u>Bacteriology</u>		<u>Numbers</u>	<u>Total</u>
Nasal Swabe		2	54
<u>Blood Culture</u>			
Enteric		1	
Eyogenic		1	
Sub-cultures		26	
Urines		1	
Pleural Fluid		4	
Throat Swabs		17	
Pus Organisms		2	
B. <u>Quantitative Biochemistry</u>			
Blood Sugar		87	489
Blood Urea		38	
Blood Calcium		1	
Total Billirubin		27	
Direct Billirubin		27	
Indirect Billirubin		27	
Uric Acid		1	
Cholestrol		11	
Acid Phosphates		1	
Alkaline Phosphatase		12	
Total Protein		2	
Albumen		2	
Clobulin		2	
Thymol Turbidity		13	
Thymol Flocculation		2	
8 Creatinine		1	
<u>Cerebrospinal Fluid C.S.F.</u>			
Protein		45	
Globulin		45	
Chlorides		25	
Glucose		45	
Cell count		45	
<u>Serous Fluid</u>			
Protein		9	
Cell Count		9	
<u>Gastric Content</u>			
Bile		2	
Mucus		2	
Starch		2	
Free Hol		2	
Blood		2	
Total Acidity		2	
C. <u>Qualitative Biochemistry</u>			<u>Total</u>
<u>Urines</u>			2,042
Albumen		603	
Percentage		15	

Sugar	540
Acetone	36
Bile Salts	43
Bile Pigments	43
Urobilinogen	34
Specific Gravity	37
Reaction	683

Faeces

Occult Blood	8
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D. Haematology

Total

Haemoglobin	874
Red cell count	15
White cell count	286
Differential count	252
Platelet count	1
Pack Cell Volume	285
Erythrocyte Sedimentation rate	222
Bleeding time	2
Coagulation time	2

2,281

Blood Parasitology

Malaria Slides	10
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Blood Transfusion

Blood Grouping	148
RH Grouping	148
Gross Matching	36

E. Microscopy

Skin Scraping M. Leprae	119
Faeces	4,815
Urines	412
Sputum	593
Cervical Smear	1,157
Urethral Smear	915
Vaginal Smear Trichomonas	4
Pleural Fluid	3
Synovial Fluid	1
Eye Smear	53
Throat Swabs	21

Total

8,211

C.S.F.

Pus ? Organisms	7
Pus ? A.F.B.	2
D.G.I.	102
Urines D.G.I.	2
Liver Pus	1

F. Serology

Kahn Test

Total

Positive	283
Negative	3,790
Doubtful	35

4,160

Widals

Salm Typhi O	13
Salm Typhi H	13
Brucella Abortus	13
Proteus Ox 19	13

G. Public Health

Bacteriological Water Analysis

		<u>Total</u>
Presamtime test	7	56
Confirmatory test	7	
Completed test	7	
Differentiation of Coliform Group	7	
Citrate Utilization	7	
Methyl Red	7	
Voges Proskaver Reaction	7	
Indole	7	

H. Veterinary

		<u>Total</u>
Faeces	24	34
Blood Smear	10	

I. Medico Legal

Blood Stains	3	3
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J. General: Maintenance and preparation of all sterile water, Glucose Saline, Emetine etc. and blood transfusion apparatus were carried out in this Department.

Total Number of examinations done for the year ending 31st December,
1960 = 17,330.

VII. X-Ray Department

The only unit available for X-Ray Diagnostic work is a 15 MA Watson Protable Unit which has served the Colony for many years producing high quality radiographs. During the past year the tube head had to be replaced and several minor repairs were carried out by the Engineers of H.M. Navy and Messrs. Cable and Wireless. Considering the unit is never services it is remarkable that it continues to function so well.

A new Watson 300 MA Static unit is awaiting installation in the new X-Ray Block and when this comes into operation the old unit will be retained for ward work only.

During 1960 the total number of patients X-Rayed rose to 3,043 as compared with 866, 1,488, 1,631, 1,912 for the previous four years 1956-1959 inclusive.

The following examinations were undertaken during 1960, 1958 and 1959 figures are bracketed for comparison.

	<u>1960</u>	<u>1959</u>	<u>1958</u>
Chest	1,639	1,061	982
Upper limb	386	402	202
Lower limb	352	129	107
Pelvis and hips)	90)	87)	92
Spine)	90)		
Skull)	40)	39)	48
Jaw)	38)		
Sinuses	54	22	5
Dental	247	97	22
Shoulder girdle	48)	49	45
Ribs	24)		
Pregnancy	35	10	21

VIII. Public Health

Introduction

1. There are several disquieting features in the returns from this department and it is hoped that in the light of this report a new awareness of the necessity of Preventive Medicine will be born.
2. The work of the Department is often hampered by lack of finance, as the major part of the sum voted to the Medical Department has to go to the side of Curative Medicine; this bears witness to the fact that the state of the Public Health leaves much to be desired.
3. During the year under review there would appear to have been a recrudescence of leprosy, an upsurge of tuberculosis and an epidemic of syphilis. Towards the latter end of the year an outbreak of measles soon assumed pandemic proportions, and coinciding as it did with the annual epidemic of gastro enteritis, precipitated the death of several children.
4. The annual epidemic of gastro enteritis following as it does on the heavy rains is probably related to the grossly polluted water supply. In this connection it is hoped that the Waterhouse Scheme will be implemented as soon as possible. This will undoubtedly contribute much to the Health of the Public at large.

A. Vital Statistics

Table I.

	<u>1960</u>	<u>1959</u>	<u>1958</u>
Estimated Polution	41,425	* 40,858	*40,299
Total number of births notified	1,714	1,595	1,553
Live Births	1,672	1,557	1,514
Still Births	42	38	39
Birth rate per 1,000 of population	41.37	39.1	39.7
Number of deaths notified	450	421	448
Crude death rate per 1,000 population	10.8	10.3	11.1
Infant nortality per 1,000 live births	57.4	50	50
Neonatal Mortality per 1,000 live births	25	Not recorded	Not recorded
Stillbirth rate per 1,000 total births	24.5	23.8	25.7

* In previous years these figures had been over estimated. The present figures have been taken from the Census Commissioner's report and the vital statistics for previous years corrected accordingly.

Table 2

<u>CAUSES OF INFANT MORTALITY</u>	
	<u>Number of Deaths</u>
Prematurity	18
Gastro enteritis	17
Bronche Pneumonia	12
Congenital Deformities (including one Mongol)	10
Malnutrition	5
Haemorrhagic disease of new born	4
Anaemia	3
Cerebral birth trauma	3
Cerebral haemorrhage	2
Measles	2
Maemolytic disease of new born	1
Cerebral diplegia	1
Atelectasis	2
Enlarged thymus	1
Abscess thymus gland	1
Neonatal tetanus	1
Tuberculous meningitis	1
Acute nephritis	1
Fractured skull (violence)	1
Uncertain causes (A137)	11
<hr/>	
TOTAL	97
<hr/>	

Table 3.

<u>CAUSES OF NEONATAL MORTALITY</u>	
	<u>Number</u>
Prematurity	18
Congenital Deformities (including one Mongol)	5
Haemorrhagic Disease new born	4
Cerebral Birth trauma	3
Intracranial haemorrhage	2
Haemolytic disease new born	1
Atelectasis	2
Neonatal Tetanus	1
Uncertain causes	4

B. Maternal and child welfare

(a) Antenatal clinics

1. As in previous years these were conducted in the various hospitals and details of the number now attending these clinics can be found under the report of each Hospital. As always, a Public Health Nurse is in attendance at the clinic to facilitate liaison between the Maternity and the Public Health department.

2. Home visits, if necessary, in the antenatal period, are carried out by the Public Health Nurses and during the year under review 58 such visits were paid.

3. Routinely on discharge from the Maternity Hospital the patients are visited at home. Similarly cases delivered at home by the Government District Midwife are followed up by the Public Health Department.

4. Post Natal Home visits

Maternity Department deliveries	868
Home Deliveries	69
Repeat visits when necessary	38

(b) Infant Welfare Clinics

1. These are proving increasingly popular but unfortunately they concept of an INFANT WELFARE CLINIC has not yet been grasped by the population at large. The large increase in attendance at these clinics is almost certainly due to the fact that for the latter part of the year a medical officer was in attendance at each session.

2. Conditions in Seychelles are such however that it will always be difficult to adhere strictly to the United Kingdom concept of an Infant Welfare Clinic. Here many infants are brought along to "see the doctor" because they are ill. The aim of the clinic is however to check the progress of the infant, to give advice to the mother on the care of her child and to immunize the babies against infectious diseases. It is hoped in this way to build up a stronger generation, protected against the killing diseases of childhood.

3. This valuable work is considerably hampered by lack of proper accommodation. As in previous years, the clinics have been held in unsuitable places, but the department is indeed very grateful to those members of the community who so obligingly allow the monthly invasion of many infants into their premises.

- e.g.
1. The Police Constable at Glacis Police Station
 2. The headteachers at various district schools
 3. The retired Government Midwife at Cascade, who do kindly opens her home to the Public Health Department and allows monthly clinic sessions to be held there, free of charge.

4. It must be realised however that these arrangements are not satisfactory and the time is eagerly awaited when each district will have its small "Health Centre" where the Public Health district Nurse can reside and conduct the work of her district. It is the aim to have nine such centres eventually, and it is hoped to finance the scheme from C.D. & W. funds.

Table 4

NUMBER OF ATTENDANCES AT THE INFANT WELFARE CLINICS

	<u>New</u>	<u>Repeat</u>	<u>Total</u>	<u>Cases seen by M.O.H.</u>
Mahe	1,023	3,326	4,349	625
Praslin and La Digue	228	986	1,214	-
TOTAL	1,251	4,312	5,563	625

NUMBER OF ATTENDANCES FOR IMMUNIZATION

	<u>Diphtheria</u> <u>New</u>	<u>Tetanus</u> <u>Repeat</u>	<u>Pertussis</u> <u>Booster dose</u>	<u>Total</u>
Mahe	568	938	289	1,795
Praslin and La Digue	161	207	73	441
TOTAL	729	1,245	362	2,236

6. Through these clinics a total of 122 infants received an issue of milk free from the Red Cross Society. This Society donates 8 tins of Nestle's Sweetened condensed milk per child per month if the child is so recommended by the Public Health Department to be in need of such milk.

Home visiting to Infants and Preschool children

The visiting of infants and preschool children in their homes was carried out as in previous years. All together 368 such visits were paid, advice being given to the mother on the care of her child.

Further valuable work in this section of the population was the B.C.G. vaccination of 136 preschool children against tuberculosis.

C. School Health Service

The aim of this service is to have each child in free primary schools throughout the Colony medically examined three times throughout primary school life, i.e. on entry into Standard I, and again in Standard IV and finally in Standard VI.

This year this aim was not quite realised because of the shortage of Medical Officer in the first half of the year. When the establishment of medical officers was filled however, a School Medical Officer was appointed and a Referral clinic for school children was opened at Seychelles Hospital. Here any child found at routine medical examination to be in need of further investigation and treatment, could be adequately followed up.

Altogether in Mahe and Praslin, 1,654 children were routinely examined and 591 of them found to be in need of medical treatment. The commonest causes of morbidity found were as listed below:-

	<u>Number of cases</u>
Anaemia	176
Diseased tonsils with/without cervical gland enlargement	104
Chest infections	64
Malnutrition	57
Skin complaints	33

Of these numbers a total of 290 were referred to the Special School Clinic for further follow up.

Tonsillectomy was performed on five children.

Twenty-one children with refractive errors received spectacles free through the Red Cross Society.

Cases requiring dental treatment were referred directly to the Government Dental Surgeon at the Hospital.

The protection of school children by B.C.G. vaccination against Tuberculosis was continued systematically throughout the year. Of 787 children tested, 255 were found to be in need of vaccination and of number 239 agreed to have the protection offered.

The Public Health Nurses visited the schools in their district regularly throughout the year, attending to minor complaints, and recording weights of the children on their medical record cards twice yearly when possible.

D. Home Nursing

Recourse is often made to the Public Health Nurse when a patient requires injections or dressings. This can be done at the patients' home by the District Nurse when so recommended by the doctor in charge of the case; this is a particularly valuable service to the aged and deformed who often find it difficult to find transport to take them to the hospital clinic.

The following is a summary of the work carried out in this field:-

Number of cases referred from doctors	192	
Visits to geriatric cases	New 18	Repeat 145
Number of dressings done	New 36	Repeat 836
Number of injections given	New 279	Repeat 4,274

These injections include those given to cases of tuberculosis, diabetes, and measles.

E. Communicable Diseases

Once again helminthiasis infestations head the list of diagnosed diseases. In all 7603 cases of work infestations were recognised of which 1187 were due to Hookworm, the only dangerous parasite in the island. This number was closely followed by Gastro-enteritis and colitis of which diseases 3596 were diagnosed. It must be pointed out that Gastro-enteritis is often due to subnutrition. A well nourished person throws off an intestinal infection easily; an undernourished child or debilitated adult readily succumbs. And thirdly, venereal diseases show a slight increase.

(a) Tuberculosis

Owing to the absence of Dr. De, the Medical Officer in charge of the Tuberculosis Unit, for more than half the year there have been no striking changes or marked advance in the treatment of this disease in the period under review.

In November the first member of the W.H.O. Tuberculosis Survey Team arrived, but no work by the Team had started by the end of the year. Dr. De was appointed liaison officer between the Government and the Team.

The following figures show the position of Tuberculosis at the end of the year:-

Hospital

In patient accommodation in the Victoria Hospital

<u>Male</u>	<u>Female</u>	<u>Total</u>
19 beds	14 beds	33 beds

Number of Patients under treatment as In Patients on 31.12.60

Male 19	Female 14	Total Patients 33
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Number of patients treated in Hospital and discharged to the Chest Clinic during the year

Male 41	Female 48	Total patients 89
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Number of irregular discharges from the Hospital during the year

Male 5	Female 2	Total patients 7
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Chest Clinic

Number of patients having treatment by pneumo-peritoneum

Male 15	Female 2	Total patients 17
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Number of patients having domiciliary treatment

Male 37	Female 15	Total patients 52
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Number of Phrenic Crushes performed at the Clinic

Male 3	Female 1	Total patients 4
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Number of registered patients suffering from tuberculosis who persistently remain absent from the Clinic

Male 21 Female 10 Total patients 31

Total number of registered sufferers from tuberculosis in the Colony

Male 127 Female 94 Total patients 221

Total number of new cases of tuberculosis detected during the year

Male 37 Female 31 Total patients 68

Number of deaths due to tuberculosis during 1960

Male 3 Female 6 Total deaths 9

Numbers vaccinated in current year

	<u>Mantoux Tested</u>	<u>B.C.G. vaccinated</u>
Preschool children	196	136
School children	789	239
	<hr/>	<hr/>
TOTAL	985	375
	<hr/>	<hr/>

During the year a 10% sample of schoolchildren who had been vaccinated with B.C.G. in March 1958 were remantoux tested to ascertain the potency of the vaccine used. This survey revealed that of this random sample (244 in all) nearly 89% (217 in all) had maintained their state of allergy induced by the vaccine.

It is hoped to extend BCG vaccination to all babies born in the Maternity Hospital in the coming year.

The gravity of the situation cannot be exactly appraised for there are no cultural facilities in the Colony. It may well be that there are cases infected with a resistant type of organism. Such are unlikely to be cured by existing methods and may moreover spread their deadly infection to others.

(b) Leprosy

Ten patients were admitted to the Leper Settlement at Curieuse Island during the year under review. One of these ten, a male was a re-admission having relapsed while out on "parole" because he had neglected to take his treatment. Another, a female aged 66 had travelled from Dar-es-Salaam to her native Seychelles after an absence of 6 years; she had been diagnosed in East Africa as a case of leprosy and was advised to return to Seychelles where she surrendered to the Public Health authority on arrival.

Summary of Cases

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Number admitted to Curieuse	6	4	10
Number discharged	1	2	3
Number of inmates at December 1960	10	5	15
Number of inmates at December 1959	5	3	8

Thus the number of active cases is practically doubled that of last year and all hopes of closing Curieuse as a Leper Settlement will have to be abandoned for at least two years.

(c) Veneral Disease

1. The result is extremely depressing with a total of 98 proven cases of primary syphilis of which only 12 were women. (10 out of these women were found in the 2nd half of the year).

Gonorrhoea continues much as before with 885 male and 213 female cases showing positive slides. Gonococcal ophthalmia with 35 positives is about the same as usual. These results are even more depressing when it is realised that for syphilis only 18 examinations for the organism were negative, and in men only 15 examinations for Gonorrhoea were negative. The implication is that many more cases of both diseases would be found if all persons with a sore or venereal discharge had presented for treatment. At present the laboratory is nearly always confirming a previous diagnosis and unexpected cases are not being detected.

2. The reasons for the failure of control of both gonorrhoea and syphilis (apart from the inherent moral weakness) are to be found as follows:-

- (i) Patients (usually men) tend to give the name of well known prostitutes while concealing those of their more "anateur" contacts.
- (ii) The contacts can delay presenting for examination for a very long time before any compulsion is applied and meanwhile infect many others.
- (iii) The gonococcus is latent in about 50% of contacts and so these ladies cannot be compelled to have any treatment.
- (iv) The postal system of delivering registered letters to contacts is unreliable and many contacts never receive the initial letter while innocent parties receive what is meant for others.

As a suggestion to combat the problem the following could be considered:-

- (a) To make patients pay for treatment and so encourage a better attitude towards their disease.
- (b) To re-institute the pre-existing method of "Press Ganging" contacts to come for treatment. This will mean drastically altering the ordinance which is manifestly inefficient regarding the protection of the medical and nursing staff and regarding the enforcement of examination and treatment of contacts.
- (c) Increasing the laboratory facilities (especially by augmenting staff) so that more examinations can be made. As a temporary measure the routine taking of cervical smears from Ante-Natal patients should be stopped up. The figures of ophthalmia show that the examination is ineffective either because the organisms are latent or the mothers become re-infected.
- (d) The question of instruction to school children regarding sex education and the results of promiscuity could be considered. This is a delicate point in Seychelles.

The Kahn results are as follows:-

Number positive	283
Number Doubtful	35
Number negative	3790

Total	4108
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This test is of less value than the Wassermann and is largely a waste of time when applied to people going to the outlying islands, and to the Ante-Natal patients unless they attend early in their pregnancies. As a temporary measure this test could be limited to selected persons while laboratory staff is so short.

Summary of Laboratory Examinations carried out 1960

Month	MEN		WOMEN		MEN & WOMEN		INFANTS	
	Urethral Swab		Cervical Swab		Dark Ground Illumination		Eye Swab for G.C.	
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
January & February	138	3	52	197	11	3	6	2
March & April	148	1	17	146	8	2	7	8
May	82	3	18	96	9	2	7	4
June	70	0	20	94	5	0	0	0
July	74	1	20	79	4	1	1	0
August	71	3	17	59	9	1	2	1
September	89	1	16	85	10	4	4	1
October	95	2	22	63	14	4	2	1
November	55	0	11	54	9	1	0	-
December	63	1	20	71	19	0	6	1
TOTAL	885	15	213	946	98	18	35	18

Note (i) Of the 12 women with Primary Syphilis 10 were found in the second half of the year.

(ii) See also page 8 which gives the figures of infected cases found in the Ante Natal Clinic.

(d) Diseases caused by intestinal parasites

Reference to the list of causes of morbidity in the Colony will reveal that these diseases far outnumber any other.

	<u>Total No. of Cases</u>
Helminthiasis (including Ancylostomiasis ascariasis)	9731
Dysentery (including Amoebic Dysentery)	1936
Gastro Enteritis	2356

The high incidence of these preventible diseases is caused by poor sanitation. It emphasises the need to break the vicious circle of poor sanitation.

Decreased resources
to improved sanitation

poor health
increased expenditure
in curative medicine

(e) Measles

The first cases occurred about mid October and it soon became apparent that an epidemic had started. The disease was made notifiable and in the last 6 weeks of the year a total of 620 cases had been notified, 466 of these being preschool children. It is almost certain that the actual incidence of the disease was considerably higher during this time as many cases were treated at home by parents and hence were not notified.

Unfortunately this epidemic coincided with the usual annual epidemic of gastro enteritis and the combined effect of the two infections precipitated death in some cases. There were five deaths during these six weeks, 2 being associated with Gastro enteritis one with Encephalitis, one with Broncho pneumonia and one with Hyperpyrexia.

Much strain was put on the Public Health Nursing Staff who worked tirelessly at home visiting during very inclement weather. Daily injections of penicillin were given to all children under 2 years notified as cases to this department, and any older children thought to be at a risk. Doubtless this reduced the number of pyogenic complications. Unfortunately penicillin is ineffective against gastro enteritis and encephalitis, complications which were to take such a toll of young life in the early part of the new year. It should be mentioned in this connection that the majority of children who eventually succumbed to this infection and its complications could be classed as malnourished.

(f) Jiggers

A few cases of parasitasion by jigger fleas were reported during the months of August, September, and October 1960, in South Mahe and Central Mahe areas. A heavy infestation rate was observed in one classroom of a school at Baie Lazare where there is no flooring.

HOUSES BY STRUCTURAL TYPE - DISTRIBUTION AND SANITATION

	Mainly built of stone or concrete	Mainly built of wood, iron, asbestos or fibre board	Mainly built of palm leaves or lattice	Total Dwelling Houses	Water connections	Aqua Privy	Pit Latrine	Bucket Type Latrine	Water Flush	Septic Tank	Sea-front Latrines
Plaisance Ward (Urban)	22	69	Nil	91	61	11	25	8	13	1	38
Mont Fleuri Ward (Urban)	8	56	8	71	40	Nil	29	22	14	Nil	3
Hospital Ward (Urban)	16	45	Nil	61	48	2	9	13	15	25	12
Pier Ward (Urban)	22	43	2	67	63	Nil	9	20	34	Nil	6
Bel Air Ward (Urban)	1	2	Nil	3	Nil	Nil	1	Nil	Nil	Nil	Nil
St. Louis Ward (Urban)	17	176	1	194	57	3	128	40	9	1	Nil
Central Ward (Urban)	49	536	1	586	292	10	109	342	25	18	20
Total Numbers in Township of Victoria	135	297	12	1074	561	26	310	435	110	45	79

IX. HOUSING AND SANITATION

Progress in this field is being made, albeit slowly. The capital expenditure involved often renders the implementing of schemes impracticable as has been the case in the Aqua Privy Scheme and the Waterhouse Scheme. It is however encouraging to note the progress being made at the Low Cost Housing Pilot Scheme. Construction of these houses, five dwelling places in all, is now nearing completion and each house is equipped with up to date sanitary convenience in the form of tapped water supply and flush water closets with septic tanks.

The success of this project, from the point of view of improved sanitation, will depend to a large extent on the education of the public in the proper use of the water closet.

As a preliminary step towards improving the sanitation of the permanent houses in the township of Victoria an analysis of all houses in the township has been prepared by this department and, figures are given in the table on page 29.

Building Applications

As in previous years, all applications to Victoria District Council for permission to build in town area or to effect repairs to existing buildings, were passed to this department for approval. The number of such applications dealt with is as follows:-

New Building	9
Major Repairs	17
Minor Repairs	27
Others	92
	<hr/>
TOTAL	145
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ANALYSIS OF ROUTINE INSPECTIONS CARRIED
OUT BY PUBLIC HEALTH INSPECTORS

1. Visits

Dwelling houses	13,001
Latrines pit	10,228
bucket	38
sea front	212
water closets	311
aqua privy	557
double vault	10
Public water supplies	164
New Distilleries	3
Schools	57
New Cemeteries	2

2. NOTICES SERVED

(a) Verbal	6,668
Insanitary latrines	3,347
Defective drainage	29
Refuse accumulation	2,256
Keeping of pigs contrary to Swine Regulations	213
Lack of latrine accommodation	843

(b) Written

Insanitary latrines	697
Lack of latrine accommodation	328
Defective drainage	38

Refuse accumulation	13
Defective W.C.'s	18
Leaking water supply pipes and tanks	13
River pollution	7
Keeping of pigs contrary to swine regulations	120
River pollution	-
Defective Structure	-
Mosquito breeding	61
Smoke nuisances	1

3. NOTICES COMPLIED WITH

Verbal	3,946
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NOTICES OUTSTANDING (Verbal)

WRITTEN NOTICES

Complied with	459
Not complied with	238

NEW LATRINE ACCOMMODATION

Pit Latrine	170
Bucket latrine	-
Water closets	17
Aqua Privies	63

MOSQUITO CONTROL

The work of the Mosquito squad continued unabated throughout the year and it is encouraging to note that the average Aedes and Culex indices are below 1%.

Number of premises inspected	56,846
Number of Aedes breeding places noted	176
Number of culex breeding places noted	259
Average Aedes Index	.30%
Average Culex Index	.47%

Types of Breeding Places found

Drums and barrels	187
Empty tins	220,007
Broken bottles	9,039
Holes and pools	251
Bamboo stumps	838
Others	3,732

X. FOOD AND NUTRITION

1. Much has still to be done in this field of public health. There would appear to be a lack of awareness of the importance of hygiene in food handling establishments, particularly in the retailing trade. This is undoubtedly due to ignorance in many cases and shown the necessity of having some organised system of Health Education within the Colony. It is hoped to select a candidate for training as a Health Educator in the not too distant future. The selected candidate will undergo a period of training abroad and will return to work within the framework of the Public Health Department.

2. The Health Inspectors and Public Health Nurses attempt to instill the fundamentals hygiene into the populace during the course of their duties, but all too often are confronted by the attitude that "my grandfather did what I do and he came to no harm." It is conveniently forgotten that grandfather probably had several siblings who died at a tender age.

3. That malnutrition exists cannot be denied. It will continue to exist as long as the high illegitimacy rate persists, as long as the labouring class families produce a child every 15 months as many of them do at present, as long as the wages of the labouring classes remain at the present low level.

Summary of Work done in connection with
Food Hygiene

FOODHANDLING PREMISES INSPECTED

Shops (Groceries)	428
Bakehouses and confectioneries	264
Markets	25
Butcheries and Fisheries	13
Dairy (Government)	8
Aerated water and ice cream factory	14
Hotels	41
Boarding houses	-
Restaurants	15
Slaughter houses	86
Liquor shops	29
TOTAL	936

Slaughtering of animals

Animals inspected ante-mortem	1,227
post-mortem	
Cattle	304
Pigs	1,173
Turtle	391

FOOD CONDEMNED

Cattle	115½ lbs.
Pigs	972 lbs.
Turtle	243 lbs.
Fish	100 lbs.

UN SOUND FOOD CONDEMNED

Jam (tins)	4 tins
Preserved fruits (tins)	4 tins
Rice Kgs.	-
Condensed milk (tin)	-
Tinned fish (tins)	4
Canned foods (tins)	12
Fruit juices (tins)	-
Tomato sauce (tins)	-
Birds eggs (crates)	-
Butter (tin)	1

XI - PORT HEALTH

During the year the following ships called at this port. There were no cases of quarantinable diseases:-

British	56
Indian	11
Dutch	5
Japanese	4
American	2
Russian	1
Danish	1
Chinese	1

TOTAL 81

Arrangements for Radio Pratique to be given to all passenger ships carrying a Medical Officer were made in March 1960 in accordance with Regulation 5 of the Quarantine (Maritime) Regulations 1947. Such arrangements necessitated the appointments of two visiting officers under section 3 (2) of the Quarantine Ordinance (General Pratique and Control of the Quarantine Authority).

The following table shows the number of inoculations and vaccinations given to International Travellers.

Against Yellow Fever	284
Cholera	261
Smallpox	315

At the beginning of the first school term of 1960 on January 18th the school dental service which was started on October 16th 1959 was continued in 1959, four schools in Mahe were visited, viz. Port Glaud, Grand Anse, Anse Boileau and Takamaka. In 1960, 8 schools were visited. These were Baie Lazare, Anse Royale (Church of England) Anse Royale (R.C.), Anse aux Pins, Cascade, Bel Ombre, Glacis and Anse Etoile.

Visits to the schools ended on April 11th 1960.

It must never be assumed, however, that once all the schools have been visited the children will be dentally fit for a long time or that the work is finished. This type of work is in reality never ending. By the time, the last school is seen it is time to start again at the first school because very few people, especially children, remain fit for longer than six months.

The figures for the number of teeth extracted appear high at first glance. For instance, the number of attendances at the eight schools visited in Mahe in 1960 was 1,582 and the number of teeth extracted was 1,807. Very few of these children were 14 years of age, the majority were much younger. In other words most of teeth extracted were deciduous ones and the extractions figures also included a very high proportion of deciduous roots. A small number of permanent had to be extracted either in an attempt to correct orthodontic abnormalities e.g. over-crowding of the dental arches occurring in a patient with large teeth and small jaws, or because the teeth were beyond conservative treatment. Of the permanent teeth extracted, the first permanent molars especially the lower ones, suffered most.

The first permanent lower molars are so prone to dental caries that many operators are of the opinion that they should always be extracted provided the third permanent molars are present, as indicated by radiographs.

Filling Material used: The filling material of choice was silver amalgam even in the majority of restoration in anterior teeth. Silver amalgam was also used in fillings of deciduous teeth as it is easier of manipulation than copper amalgam, which is the material usually employed, as is just as good if not better as a filling material.

Very few silicate (synthetic porcelain) fillings were done in anterior teeth. Silver amalgam was used instead because it gives a more durable restoration, a very important consideration if the patient is not likely to be able to see a dental surgeon for a long time.

Conclusion

Comprehensive treatment can restore order even in the most neglected mouth, but without the co-operation of the individual child, the parents and teachers in maintaining dental health, treatment in the more caries-prone children will break down. Some children undoubtedly with the connivance of their parents absented themselves from school during the dental visit; others failed to turn up for subsequent appointments. Comprehensive treatment must also include the preservation of both dentitions. However the treatment of permanent teeth must have a prior claim in the present day situation of a dentis shortage. There should always be a dentist constantly doing the schools and the islands.

School dentistry in Seychelles consists entirely of simple fillings and extractions. The school dental surgeon has no opportunity of doing any type of advanced conservative dentistry, orthodontics, prosthetic work, furthermore he is working under somewhat primitive conditions.

Schools	Attendance	Fillings	Extractions	Scaling	No. of cases requiring no treatment	% cases requiring no treatment	Patients with existing fillings
1. Baie Lazare	181	71	283	0	67	37.02	2
2. Anse Royale (R.C.)	408	179	456	0	175	42.89	6
3. Anse Royale (C. of E.)	31	6	20	0	19	61.29	0
4. Anse aux Pins	320	58	351	4	158	49.38	4
5. Cascade	197	67	286	-	71	36.04	1
6. Bel Ombre	141	58	147	-	56	39.71	-
7. Glacis	152	78	173	1	68	44.73	4
8. Anse Etoile	152	8	91	-	97	63.72	10
TOTAL	1,582	525	1,807	5	811	45.00	27

